

## CLAIMS

What is claimed is:

1           1. A test stand for testing a thermal decay of a disk  
2 of a hard disk drive, comprising:  
3           a spindle motor that can spin the disk;  
4           a head coupled to the disk;  
5           a heating element that can heat the disk;  
6           a controller connected to said head, said controller  
7 operates in accordance with a procedure that writes a  
8 reference signal onto a reference track of the disk and  
9 then reduces an amplitude of the reference signal, writes a  
10 test signal onto the disk, reads the test signal when the  
11 disk is heated by the heating element, reads the reference  
12 signal, and normalizes the test signal with the reference  
13 signal.

1           2. The test stand of claim 1, wherein the amplitude  
2 of the reference signal is reduced with a DC erasing  
3 current from said head.

1           3. The test stand of claim 1, wherein the amplitude  
2 of the reference signal is reduced between 60 to 80% of a  
3 peak value.

1           4. The test stand of claim 1, wherein said heating  
2 element is a laser that directs a laser beam onto a portion  
3 of the disk.

1           5. The test stand of claim 4, wherein said head is on  
2 a first surface of the disk and the laser beam is directed  
3 onto an opposite second surface of the disk.

1           6. A method for testing a thermal decay of a disk of  
2 a hard disk drive, comprising:

3           writing a reference signal onto a reference track of  
4 the disk;

5           writing a test signal onto the disk;

6           reducing an amplitude of the reference signal;

7           heating a portion of the disk;

8           reading the test signal from the heated portion of the  
9 disk;

10          reading the reference signal; and

11 normalizing the test signal with the reference signal.

1 7. The method of claim 6, wherein the amplitude of  
2 the test signal is reduced with a DC erase signal.

1 8. The method of claim 7, wherein the amplitude of  
2 the test signal is reduced 60 to 80% of a peak value.

1 9. The method of claim 6, wherein the disk is heated  
2 with a laser beam.

1 10. The method of claim 9, wherein the test signal is  
2 read with a head located adjacent to a first surface of the  
3 disk, and the laser beam is directed onto an opposite  
4 second surface of the disk.